Acetate-1-C^{14}, incorporation of, into cholesterol, effect of T_0P and its iodinated analogues on, 514
ACTH, histologic alterations in adrenal cortex after, 149
secretion of, cerebral involvement in the inhibition of, by hydrocortisone, 936
neural control of, effect of acute decerebration in the rat, 845
reversible binding of, to a glass surface, 91
uptake of serine-1-C^{14} into, 592
Adipokinetic actions, of various hormones, in various animals, 527
Adrenal androgens, effects of, on immature female mice, 210
Adrenal cortex, effect of subcommissural organ and pineal body on, 28
electron microscopic investigations of, 197
histologic alterations in, after treatment of intact and hypophysectomized rats with ACTH, pitressin and adrenal steroids, 149
Adrenal function, in the infant rhesus monkey, 146
and triparanol, 643
Adrenal gland(s), blood flow through, 418
innervated and denervated, ascorbic acid and corticosterone concentration of, 836
Adrenal steroids, histologic alterations in adrenal cortex after, 149
Aldosterone, electrolyte excretion of, effect of 16α-OH steroids on, 397
Amino acid, incorporating system, steroid-sensitive, of mouse kidney, 465
Amino acid C^{14}, incorporation of, into thyroid protein, 620
Anabolic agents, orally active, evaluation of protein anabolic properties of, based on nitrogen balance studies, 408
Androgens, adrenal, effects of, on parabiotic mice, 403
regulation of protein biosynthesis by, 354
time differences in response of secondary male sexual characters to, 169
Ascorbic acid, effects of gonadotrophic hormones on concentration of, in rat ovary, 693

Bone lesions, scorbutic, protection of, by equine estrogen, 1
Brain, maturation of, precocious, after estradiol, 598
penetration of light into, 962

Calcium absorption, participation of parathyroid glands in control of, 192
Castration, pituitary reactions to, failure of anterior hypothalamic lesions to prevent or to inhibit by estrogen treatment, 638
Cholesterol, esterification of, by homogenates of rat adrenal tissue, 735
Computer program, for analysis of data from "parallel line" biological assays, 663
Corticoid feedback mechanism, localization of, 936
Corticotropin, effect of, on exhaled carbon dioxide of mice, 518
Cortisol, effects of, on amino acids in skeletal muscle and plasma, 267
response to, of level of acid mucopolysaccharides in rat granulation tissue, 393
Cortisone effect, on aromatic amino acid decarboxylation, 33
on fate of I^{131}, 914
Cortisone treatment, study of bone in, 231
Cryptorchidism, effect of, on testicular enzymes involved in androgen biosynthesis, 292

Acetate-1-C^{14}, incorporation of, into cholesterol, effect of T_0P and its iodinated analogues on, 514
ACTH, histologic alterations in adrenal cortex after, 149
secretion of, cerebral involvement in the inhibition of, by hydrocortisone, 936
neural control of, effect of acute decerebration in the rat, 845
reversible binding of, to a glass surface, 91
uptake of serine-1-C^{14} into, 592
Adipokinetic actions, of various hormones, in various animals, 527
Adrenal androgens, effects of, on immature female mice, 210
Adrenal cortex, effect of subcommissural organ and pineal body on, 28
electron microscopic investigations of, 197
histologic alterations in, after treatment of intact and hypophysectomized rats with ACTH, pitressin and adrenal steroids, 149
Adrenal function, in the infant rhesus monkey, 146
and triparanol, 643
Adrenal gland(s), blood flow through, 418
innervated and denervated, ascorbic acid and corticosterone concentration of, 836
Adrenal steroids, histologic alterations in adrenal cortex after, 149
Aldosterone, electrolyte excretion of, effect of 16α-OH steroids on, 397
Amino acid, incorporating system, steroid-sensitive, of mouse kidney, 465
Amino acid C^{14}, incorporation of, into thyroid protein, 620
Anabolic agents, orally active, evaluation of protein anabolic properties of, based on nitrogen balance studies, 408
Androgens, adrenal, effects of, on parabiotic mice, 403
regulation of protein biosynthesis by, 354
time differences in response of secondary male sexual characters to, 169
Ascorbic acid, effects of gonadotrophic hormones on concentration of, in rat ovary, 693

Bone lesions, scorbutic, protection of, by equine estrogen, 1
Brain, maturation of, precocious, after estradiol, 598
penetration of light into, 962

Calcium absorption, participation of parathyroid glands in control of, 192
Castration, pituitary reactions to, failure of anterior hypothalamic lesions to prevent or to inhibit by estrogen treatment, 638
Cholesterol, esterification of, by homogenates of rat adrenal tissue, 735
Computer program, for analysis of data from "parallel line" biological assays, 663
Corticoid feedback mechanism, localization of, 936
Corticotropin, effect of, on exhaled carbon dioxide of mice, 518
Cortisol, effects of, on amino acids in skeletal muscle and plasma, 267
response to, of level of acid mucopolysaccharides in rat granulation tissue, 393
Cortisone effect, on aromatic amino acid decarboxylation, 33
on fate of I^{131}, 914
Cortisone treatment, study of bone in, 231
Cryptorchidism, effect of, on testicular enzymes involved in androgen biosynthesis, 292

Deciduomata, 305, 317
Dehydroepiandrosterone, and testosterone, comparative androgenic potencies and contrasting gynecogenic actions of, 19
Dehydrogenase, ovarian steroid, 924
Diabetes, alloxan, estrogen action in, 626
islet α cells in, 238
role of ascorbic acid in inhibition of estrous cycle in, 159
growth hormone, glycogenization of canine pancreatic A cells during, 496
Diabetes insipidus, experimental, interphase in, 677
Diiodotyrosine, deamination of, 296
Diphosphopyridine nucleotides, ratios of total oxidized to total reduced, in rat livers, 829

Ellis, evaluation of ovarian hyperemia, method of, 955
Endocrine gland, blood flow of, effect of acute stress on, 588
Endotoxin, pituitary-ACTH response to, in the dog, 876
Epinephrine levels, plasma, glucagon elevation of, 523
Epiphysiodiaphysial union, effects of steroids on, 11
Estradiol, and pituitary-adrenal function, 947
precocious brain maturation after, 598
Estradiol benzoate, effect of, in newborn male rat, 966
Estrogen, equine, protection of scorbutic bone lesions of guinea pig by, 1
modifying action of, on evolution of osteoarthrosis, 449
Estrogen action, in alloxan-diabetic rat, 626
Estrogen antagonism, comparison of effects of various anti-estrogens, 665
Estrogen implants, effects of, on pituitary prolactin and lactation, 243
Estrone, pituitary gonadotropic inhibitory action of, in parabiotic rats, 115
Estrous cycle, effects of, on sensitivity of rat uterus to oxytocin and desaminooxytocin, 279
Estrus, persistent, vaginal cornification in, 607
Ethionine, action of, on stress-induced ACTH release, 582
Exocrine glands, effect of $KClO_4$ on, 377

4-Hydroxy-19-nortestosterone-17-cyclopentylpropionate, a long-acting anabolic steroid, 494

Glucagon, effects of, on carbohydrate and protein metabolism of adductor muscle and diaphragm, 71
Glycogen, liver, sources of carbon atoms of, formed by cortisol administration to rats *in vivo*, 134
Gonadotropin inhibitor, effect of, on mouse uterine response to various gonadotropins, 903
Growth hormone, antibodies to, high concentration of, by new procedure, 667
chronic, effects of, on lipogenesis by rat adipose tissue, 95
influence of, on os penis in the dog, 161

Heart, frog, succinoxidase in, effect of T_4 on, 673
Hemodynamics, in adrenalectomized dogs, 918
Histamine, effect of serotonin and, in stimulating uterine phosphorylase activity, 865
Hydrolysis, of thyroid proteins, 931
Hypocalcemia, induced, effect of vagotomy and atropine on recovery from, 173
Hypothalamic lesions, growth following, 684

I^{131} metabolism, of thyroid tissue, effects of freezing and supercooling on, 488
Insulin, and adipose tissue, 273
effects of, on carbohydrate and protein metabolism of adductor muscle and diaphragm, 71
plasma, *in vivo* assay of, 544

Iodide, excess, inhibitory effect of, on thyroidal radioiodine release in the rat, 83
maintenance of skeletal growth and maturation in thyroidectomized rats by injection of, 283
regranulation of pituitary acidophils produced by, 474
thyroidal, kinetic analysis of concentration of, in hypophysectomized rats on a high or low iodine diet, 503
kinetic analysis of enhanced TSH-effect on transport of, in hypophysectomized rats on a low iodine diet, 501
Iodine, inorganic, separation and measurement of, in thyroid glands, 480

Juxtaglomerular cells, in adrenal regeneration, 859
effect of mineralocorticoid and adrenocorticotrophin on granularity of, 963

L-Thyroxine, effects of, on lipides in hypophysectomized rat, 131
L-3,5,3′-Triiodothyronine, labeled, metabolism of, by mouse pituitary tumors, 831
Lactogen release, effect of a reserpine analogue on, 649
Lipogenesis, by rat adipose tissue, effects of chronic growth hormone treatment on, 95
Luteinizing hormone, and corpus luteum glycolysis, 908
hypophysial release of, in androgenized female rats after sheep brain extracts, 832
ovarian ascorbic acid depletion test for, 804
regulation of secretion of, in immature and adult rats, 452
response to, after hypophysectomy, in ovarian ascorbic acid depletion test, effect of prolactin, 804

Mammary tissues, carbonic anhydrase activity of, 662
Medrol, effectiveness of growth hormone to prevent alterations produced by, on growing bone, 470
Metabolism, carbohydrate and protein of adductor muscle and diaphragm effects of insulin and glucagon on, 71
Methyl testosterone, effect of, on growth and skeletal maturation in rats, 123
Metopirone, pituitary-ACTH response to, in the dog, 876
Milk ejection reflex, and maintenance of lactation, 720
Mitochondria, prostatic, in castrate rats, 853
Monkey serum, insulinlike activity of, 658

Orotic acid, dietary, sex difference in induction of fatty liver by, 709
Osteitis fibrosa, role of parathyroids in production of, 782
Osteoarthrosis, evolution of, modifying action of estrogen on, 449
Ovarian hyperemia assay, 955
Ovary, of hypothyroid and vitamin B_6 deficient rat, glutamic oxalacetic transaminase activity in, 777
Oxytocin, effects of estrous cycle on sensitivity of rat uterus to, 279
exogenous, effect of, on progestogen content of bovine corpus luteum, 78

Pantothenic acid, adrenocortical alterations induced by, 725
Parathyroid hormone, effects of, on metabolism of SR^{85} and CA^{45} by embryonic chick bone, 364
on phosphate turnover in bone and kidney, 370
Parathyroids, in osteitis fibrosa, 782
Pelvic relaxation, hormonal requirements for, in hypophysectomized mice, 771
Penicillin, effect of, on thyroxine-binding by plasma proteins, 567
Peptides, synthetic, corticotrophin-releasing activity of, 897

Pitressin, histologic alterations in adrenal cortex after, 149
Pituitary-ACTH, response of, to Metopirone and endotoxin, 876
Pituitary-adrenal function, and estradiol, 947
Pituitary gland, action of ethionine on stress-induced ACTH release in, 582
changes in blood and pituitary ACTH concentrations as effect of acute stress on, 574
and iron absorption, 871
uptake of serine-1-C^{14} into ACTH in, 592
Pituitary homograft, mammotrophic effect of, in rats, 884
Pituitary transplants, heterotoxic, failure of, to maintain adrenocortical secretion, 499
Polypeptide, pineal, with pressor and oxytocic activities, 563
Progesterone, induction of pseudopregnancy in rat by, 969
metabolism of, in human fetal liver, 824
Progestin(s), gonadotropic activation of preovulatory synthesis and release of, in the rabbit, 59
isolation and identification of, in ovarian venous blood of rabbits, 67
Progestogen content, of bovine corpus luteum, effect of exogenous oxytocin on, 78
Prolactin, effect of, on response to LH after hypophysectomy, in ovarian ascorbic acid depletion test, 813
secretion of, effects of thyroid hormones and insulin, 544
Protein biosynthesis, regulation of, by androgens, 354
Protein metabolism, actions of glucagon and somatotropin on, 701

Radioiodine, thyroidal, inhibitory effect of excess iodide on release of, 83
Rat liver, sex-influenced activity of 3β-hydroxysteroid dehydrogenase of, 764
Relaxin, effects of preparations containing, on thyroid function in female rat, 337
immunologic inhibition of the biological effects of, 164
Reserpine analogue, effect of, on lactogen release from rat anterior pituitary, 649

Serine-1-C^{14}, uptake of, into ACTH, 592
Serotonin, effect of histamine and, in stimulating uterine phosphorylase activity, 865
17β-Hydroxy-C_{19}-steroid dehydrogenases, activity, intracellular distribution and some properties of, in liver and kidney, 106
Sexual development, modification of, through stimulation in infancy, 439
6-Methylprednisolone (Medrol), effectiveness of growth hormone to prevent alterations produced by, on growing bone, 470
16α-OH steroids, effect of, on electrolyte excretion of aldosterone, 397
Skeletal maturation, in rats, with special reference to order and time of epiphysial closure, 117
Skeletal morphogenesis, with iodine, 283
Sodium dextrothyroxine, oral, growth of weanling thyroidectomized rats on, 160
Spermatogenesis, ability of testosterone propionate to restore, 787
Spironolactone SC-8109, effect of adrenal enucleation and, on granularity of rat juxtaglomerular cells, 859
Steroid(s), activity of, route of administration as factor influencing, 715
anabolic, long-acting, 4-hydroxy-19-nortestosterone-17-cyclopentylpropionate, 494
effects of, on epiphysiodiaphysial union, in prepuberal mice, 11
relative potency of, in anabolic-androgenic assay in castrated rats, 259

XUM

in vitro 17α-hydroxylation of, by adrenals of hypertensive rats, 167

Testis, prepubertal, histochemistry of Leydig cells in, 443
Testosterone, and dehydroepiandrosterone, comparative androgenic potencies and contrasting gynecogenic actions of, 19
Testosterone propionate, effect of, on growth and skeletal maturation in rats, 123
guinea pig responsiveness to masculinizing action of, 429
influence of, on os penis in the dog, 161
Thiourea S^{35}, metabolism of, by fetal thyroid, 223
3:5 Diiodo-L-tyrosine-alpha-ketoglutarate transamination by extracts of rat kidney mitochondria, 296
3,3′,5-Triiodothyropropionic acid, effects of, on oxygen consumption, goiter prevention and cholesterol biosynthesis in the rat, 509
Thyroid, some influences of, on pituitary-adrenal axis, 45
Thyroid function, in chickens and rats, effects of iodine content of diet and of hypophysectomy on iodine metabolism, 749
equilibration of thyroidal iodine, 759
differences in, between T3-treated and hypophysectomized rats, 100
effect of bilateral ablation of habenular nucleus on, 972
Thyroid glands, separation and measurement of inorganic iodine in, 480
Thyroid hormone, effect of 2,4-D on, 327
Thyroid proteins, hydrolysis of, 931
Thyroid tissue, I^{131} metabolism of, effects of freezing and supercooling on, 488
Thyropropionic acid, effects of, on oxygen consumption, goiter prevention and cholesterol biosynthesis in the rat, 509
and its iodinated analogues, effect of, on incorporation of acetate-1-C^{14} into cholesterol by rat liver homogenates, 514
Thyrotrophic hormone, effect of, on thyroxine uptake by abdominal muscle of mouse, 345
Thyrotrophin, human, purification of, 893
secretion of, *in vitro* influence of central nervous system tissues on, 39
neuroendocrine control of, 817
Thyroxine, biliary excretion of, effect of salicylate on, 253
effect of, on aromatic amino acid decarboxylation, 33
on succinoxidase and malic dehydrogenase reactions of frog myocardium, 673
peripheral, effects of 2,4-dichlorophenoxyacetic acid on, 327
protein binding of, effect of various compounds on, 799
secretion rate of, estimation of, by radioactive thyroxine turnover technique, 382
Toad bladder, effects of neurohypophysial hormones on oxidative metabolism of, 742
Transaminase activity, effect of PMS on, in ovary and uterus of rats, 777
"TRF" of Shibusawa, critical evaluation of, 334
Triparanol, and adrenal function, 643

Uterine sensitivity, hormonal control of, by steroid hormones of the ovary, 317
temporal aspect of, in pseudopregnant or pregnant rat, 305
Uterus, rat, stimulation of cell division by estradiol and vasodilating amines, 180

Vaginal cornification, in persistent-estrous mice, 607
Vasopressin, and toad bladder metabolism, 742

End-B

XUM